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TOWNSEND and TOWNSEND and CREW LLP

By: Lacy Barclay

PATENT
Attorney Docket No.: 016747-015500US
Client Ref. No.: P4704-US-NP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Ashley Saulsbury et al.

Application No.: 09/992,064

Filed: November 21, 2001

For: METHODS AND APPARATUS FOR PERFORMING PIXEL AVERAGE OPERATIONS

Customer No.: 20350

Confirmation No. 4869

Examiner: Chat C. Do

Technology Center/Art Unit: 2193

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants request review of the final rejection for the above-identified application, from the Final Office Action mailed April 14, 2006 ("Final Office Action"). No amendments to the claims are being filed with this request, and the review is requested for the reasons stated herein.

This request is being filed with a Notice of Appeal.

REMARKS: REQUEST FOR PRE-APPEAL REVIEW

1. Status of Claims

Claims 1-21 are present for examination, and claims 1, 8, and 18 are the independent claims. The Final Office Action rejected claims 1-21 under 35 U.S.C. §102(e) as being anticipated by the cited portions of U.S. Patent No. 6,889,242 to Sijstermans et al. ("Sijstermans"). The rejections are respectfully traversed on the following basis.

2. Rejections

The Final Office Action rejected independent claims 1, 8, and 18 as being anticipated by Sijstermans. For a valid anticipation rejection, the Office must show that each limitation from the claims appears in a single piece of prior art. Applicants believe limitations from the amended independent claims are neither taught nor suggested in the reference.

Specifically, claim 1 recites a single, executable "machine code instruction comprising an address for the first input register, an address for the second input register, an address for the output register, the op code indicating a function to perform, *and the rounding factor*" (emphasis added). Claims 8 and 18 contain similar limitations. It is clear that the limitations of the amended claims are *not* disclosed in the cited art, as Sijstermans describes ***two separate instructions***: a first instruction that sets the rounding mode, and at least one other instruction that performs an arithmetic operation.

Sijstermans describes a VLIW processor able to execute a rounded averaging operation of four unsigned byte vectors (Sijstermans, col. 6, ll. 9-14). However, in Sijstermans, a *first* "**machine instruction** can be used to **select** one of a variety of rounding modes. ... Once a rounding mode is set, the programmable processor uses the mode when executing **subsequent machine instructions that perform arithmetic operations**" (emphasis added) (*Id.*, col. 2, ll. 33-45). Sijstermans clearly suggests a ***first*** machine instruction to select a rounding mode, and ***other*** instructions to perform the arithmetic operation.

Claims 1, 8, and 18 instead specify a **single executable machine code instruction** including a rounding factor and the op code and addresses for the operation. This clearly distinguishes the claimed embodiments from Sijstermans.

The Final Office Action relies on the assertion that Sijstermans describes a "rounding mode value" that determines the "type of rounding" to be applied (Sijstermans, col. 6, ll. 18-19). Table 1 of Sijstermans illustrates how different integer "rounding mode value[s]" are linked to different rounding modes. But Sijstermans clearly fails to suggest a single machine code instruction including a rounding factor and the op code and addresses for the operation.

Sijstermans, in fact, teaches away from this limitation, clearly suggesting a ***first*** machine instruction to select a rounding mode, and ***other*** instructions to perform the arithmetic operation (Sijstermans, col. 2, ll. 33-45). The independent claims of Sijstermans each make this abundantly clear:

Claim 1 of Sijstermans provides for executing "**two separate instructions** in a programmable processor, comprising: executing a **first** instruction in the programmable processor to set a **rounding mode**; and executing a **second** instruction within the programmable processor to **generate** an integer **result** rounded according to the rounding mode" (emphasis added).

Claim 11 of Sijstermans sets forth "**two separate instructions**, comprising a **first** instruction that sets a **rounding mode**, and a **second** instruction that performs an **arithmetic operation** yielding an integer result rounded according to the rounding mode" (emphasis added).

Claim 17 of Sijstermans calls for "a **first** instruction to set a **rounding mode** ... [and to] perform an **arithmetic operation** according to a **second** instruction" (emphasis added).

Claim 21 of Sijstermans provides for "executing **two separate instructions** in a programmable processor, comprising: executing a **first** instruction in the programmable processor to set a **rounding mode**; and executing a **second** instruction within the programmable processor to **generate an integer result**" (emphasis added).

The remaining independent claims of Sijstermans, claims 27, 31, 38, 43 and 49 contain similar limitations.

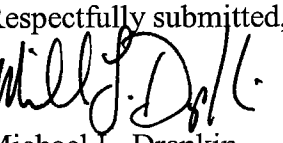
Moreover, it seems that the Office is relying on "avg4_bu r10 r20 r30 r40 r50" as reading on the single machine code instruction limitation (Sijstermans, col. 6, ll. 27). But there is no rounding factor contained in this instruction, as it merely appears to be executing an operation with a *previously selected* rounding mode.

CONCLUSION

Independent claims 1, 8 and 18 are allowable for at least the reasons cited above. Claims 2-7, 9-17, and 19-21 each recite limitations in addition to those in the independent claims, and the dependent claims are believed allowable for at least the same reasons as given above. Withdrawal of the rejection is respectfully requested.

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested. The Commissioner is hereby authorized to charge the Notice of Appeal fee and any additional fees associated with this paper or during the pendency of this application, or credit any overpayment, to Deposit Account No. 20-1430. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,



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